



Armor Branch Physical Demands



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V. 19 17 MAR16



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Purpose: Review and revise the physical demands outlined in DA PAM 611-21 required to be awarded an Armor MOS.

Outcome: The Task, Conditions, Standard for each physical demand is clearly defined for each AOC/MOS.



HPDs



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- High Physical Demands (HPDs) for AOC/CMF 19 are strictly “physical” demands not “skill” requirements for the Branch.
- On 081330 MAR 2016 a CSM/SGM peer review panel evaluated the HPDs, resulting in-

	19A	19K	19D	19Z	Total
Reviewed	15	12	13	8	48
Removed	8	5	6	5	24
Revised	7	7	7	3	24

- Concerned level of attrition
 1. Potential for increased attrition rates, what is an acceptable level of tolerance that TRADOC is willing to accept?
 2. Is TRADOC plan flexible enough to process soldiers for reclassification?
 3. If there is a 4-6 week gap between training cycles for soldiers that recycle is this acceptable?
- Retesting Standards are conducted in accordance with TRADOC Regulation 350-6, Para. 4-14, APP I.
 - 1ST Retest Failure Unit First Sergeant approval.
 - 2nd Retest Failure Unit Company/Troop Commander Approval.
 - 3rd Retest Failure BN/SQDN Commander has (3) New Start in Another CO or BN; Available reclassification/ renegotiation, or recommend Soldier for separation.

Removed:

- Estimate range (19A/D/K)
- Echo oral commands (19A/D/K)
- Finger Dexterity(19A/D/K)

Common Tasks

- Maintain 25mm Gun on BFV-remove feeder assembly (19A/19D)
- Move over, through and around obstacles (19D)
- Removed Load 25mm H EIT Tracer Ammunition can on a BFV (19A/19D)

Armor Tasks

- Removed mount M2 .50Cal machine gun receiver on an M1 Abrams tank (19A/19K)
- Removed remove a casualty from an Abrams tank (19A/19K)



High Physical Demands

Reviewed, Revised, Removed



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Required Tasks	19A	19D	19K	Remarks
Drag a Casualty to Safety (Dismounted)	YES	YES	YES	Revised
Conduct a 12 mile Foot March	YES	YES	YES	Revised
Employ Hand Grenades	YES	YES	YES	Revised
Carry and Emplace sand bags	N/A	YES	YES	Revised
Remove a Casualty from a Armored Vehicle (Mounted)	YES	YES	YES	Revised
Lift and move the 25mm feeder	YES	YES	N/A	Revised
Load TOW Missile Launcher on the BFV	N/A	YES	N/A	Revised
Armor Tasks				
Stow ammunition on a Abrams Tank	YES	N/A	YES	Revised
Load the 120mm Main Gun	YES	N/A	YES	Revised



19A, 19D, 19K, 19Z

Drag a Casualty to Safety (Dismounted)

Reference: STP 21-1-SMCT (081-COM-1001)



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Task: Individually Drag a Casualty to Safety

Condition: Wearing ACUs, ACH, IOTV with front and back plates, and given a casualty weighing 188lbs on a SKEDCO

Standard: Casualty dragged 15 meters in 60 seconds

Frequency of task occurs less than 20% (**Occasionally**) of the time based on operational environment, enemy activity, Rules of Engagement, etc.



Soldier on the Ground

Individually lift and drag a casualty to a safe location

Weight: ~188 lbs
Horizontal Distance: 15 m
Vertical Distance: 0.5-2 m
Time: 60 seconds

Weight: ~188 lbs incapacitated Soldier
Horizontal Distance: 15m is approximately the distance a Soldier could move during a 3-5 second rush
Vertical Distance: 0.5 - 2 m is height Soldier would carry or drag casualty.



19A, 19D, 19K, 19Z

Conduct 12 mile Foot March

Reference: FM 21-18



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Task: Conduct a 12 mile Foot march

Condition: Wearing ACUs, ACH, Carrying 68 lbs. evenly distributed across the entire body as a member of a Platoon or Squad

Standard: Platoon/Squad conducts movement for 45 mins, rests for 15 mins; for each subsequent hour, Platoon/Squad conducts movement for 50 mins, rests for 10 mins; Platoon/Squad completes in 5 hours

Frequently for 19A (LT-CPT) and 19D;

Occasionally for 19A (MAJ-COL), 19K, and 19Z based on the operational environment, enemy activity, Rules of Engagement, etc.



Conduct a 12 Mile Foot March

Wearing / Carrying 68 lbs. evenly distributed over entire body and remain able to fight at conclusion of march.

Weight: 68 lbs
Horizontal Distance: 12 mi
Vertical Distance: Terrain
Dependant
Time: 5 hours

Weight: (68.14) lbs is combined weight of Basic Soldier Uniform (11.64 lbs), Weapon and Tactical Equipment (24.63) no IOTV, and ruck sack (30.87 lbs)
Horizontal Distance: 12 mi. in 5 hours is an average of 20 mins per mile while moving (4 hours moving; 1 hour resting).
Time: 5 hours

- This is not an individual event; however, all platoons and squads do not have to complete the event at the same time.
- Platoon/Squad Leaders may adjust the rate of movement as necessary while still maintaining the ability to complete the task in 5 hours.
- For RTIs this is an individual event



19A, 19D, 19K, 19Z

Employ Hand Grenades

Reference: STP 21-1-SMCT (071-COM-4407)



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Task: Employ Hand Grenades

Condition: Wearing ACUs, ACH, ,IOTV (with front and back plates), no weapon and given two M69 practice hand grenades on a hard packed surface

Standard: Throw at least one hand grenade 20 meters from the standing position.

Frequency of task occurs less than 20% (**Occasionally**) of the time based on operational environment, enemy activity, Rules of Engagement, etc.



Employ Hand Grenades

Throw hand grenade to engage enemy forces

Weight: 1 lb
Horizontal Distance: 20 m
Vertical Distance: N/A
Time: N/A

Weight: M67 Fragmentation Grenade or M69 Practice Hand Grenade
Horizontal Distance: 20 meters from the Soldier; there is no accuracy requirement.



19A, 19D

Remove a Casualty from a Armored Vehicle (Mounted) Reference: STP 17-19D1-SM-TG (171-300-0065)



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Task: Remove a Casualty from a Vehicle

Condition: Wearing ACUs, ACH, IOTV (with front and back plates), no weapon and given a casualty (prorated to ~69 lbs) and a vehicle

Standard: Casualty lifted 1 meter and removed, then placed on the turret from the vehicle within 1 minute

Frequency of task occurs less than 20% (**Occasionally**) of the time based on operational environment, enemy activity, Rules of Engagement, etc.

Lift from the Inside of a Vehicle

Weight: ~207 lbs (prorated to ~69 lbs)
Horizontal Distance: 1-2 m
Vertical Distance: 1 m
Time: 1 Minutes

Weight: ~188 lbs incapacitated Soldier with 19 lbs of Vehicle Crewman Uniform and equipment is ~207 lbs (prorated to ~69 lbs)

Horizontal Distance: 1 m is the height from the gunner's seat to the top of the turret
Vertical Distance: To clear vehicle



19A, 19D

Lift and Move the 25mm Feeder- Remove Feeder Assembly

Reference: TC 3-20.21-1 (5B)



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Frequently for 19D; **Occasionally** for 19A based on the operational environment, enemy activity, Rules of Engagement, etc.

Task: Lift, rotate, and place the M242 Feeder Assembly from the M242 Gun on a BFV on the ground

Condition: Wearing ACUs, ACH, CVC, IOTV with front and back plates.

Standard: Lift, move, and place 60lbs Kettle Bell (weight of the feeder) across the body .5 meter and place on the ground.

Remove the M242 Feeder Assembly

- Required during maintenance and during remedial action misfire procedure

Starting seated lift 60 Pounds 6 Inches and Carry .5 Meter

Weight: 60 lbs
Horizontal Distance: 1 m
Vertical distance: 6 in
Time: N/A

Starting from a seated position
Weight: M242 Feeder Assembly weighs 60 lbs



19A, 19K

Stow Ammunition on an Abrams Tank

Reference: STP 17-19K1-SM (171-126-1063)



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Task: Move 120mm MPAT Rounds from Ammo Point to Tank

Condition: Wearing ACUs, ACH, IOTV (with front and back plates), and given an Abrams Tank and 12 120mm MPAT Rounds 5 meters from Abrams Tank

Standard: Move 12 MPAT Rounds from ammo point to designated point in 5 minutes

Frequently for 19K; **Occasionally** for 19A based on the operational environment, enemy activity, Rules of Engagement, etc.



Lift 55 Pounds to Shoulder Height and Carry 5 Meters

Weight: 55 lbs

Horizontal Distance: 5 m

Vertical Distance: Shoulder height

Time: 5 min

Weight: 120mm MPAT tank round weighs 55 lbs

Horizontal Distance: Ammo point to tank

- Hands 120mm round to Soldier on hull

Vertical Distance: Height at which the round is carried

Time: Loading 12 rounds takes 5 minutes



19A, 19K

Load the 120mm Main Gun

Reference: STP 17-19K1-SM (171-126-1059)



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Frequently for 19K; **Occasionally** for 19A based on the operational environment, enemy activity, Rules of Engagement, etc.

Task: Load a 120mm MPAT Round from the ready rack into the breach

Condition: Wearing ACUs, ACH/CVC, and IOTV (with front and back plates), and given 5 120mm MPAT rounds and an Abrams Tank

Standard: Successfully load 5 120mm MPAT Rounds in 35 seconds

Lift 55 Pounds 1 Meter and Rotate 1 Meter

Weight: 55 lbs
Horizontal Distance: 1 m
Vertical Distance: 1 m
Time: 7 seconds per round; 35 seconds total

Weight: 120mm MPAT round weighs 55 lbs
Horizontal Distance: Ready rack to breach
- Motion is a rotational, twisting movement to load round into the breach
Vertical Distance: Ready rack to breach
Time: 5 rounds loaded in 35 seconds
Firing Mission: 5 Rounds



Soldier Weights

Benning: 11B, 11C, 19D, 19K; Sill: 13F; Leonard Wood: 12B



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BASIC UNIFORM

Items	Weight (lbs)
ACUs	3.20
Boots	5.00
Rigger Belt	0.50
Patches	0.49
Patrol Cap	0.48
ID Tags	0.38
Undershirt	0.35
Eye Pro	0.25
Notebook	0.25
Drawers	0.20
Socks	0.20
Wrist Watch	0.19
Ear Plugs	0.13
Chapstick	0.01
ID Card	0.01
Total	11.64

WEAPON AND TACTICAL EQUIPMENT

Items	Weight (lbs)
ACH With Cover	3.53
100oz Hydration System	7.1
FLC	5.87
Elbow/Knee Pads	0.79
M4 W/PEQ-15 & M68 CCO	7.34
Total	W/ WPN 24.63 W/O WPN 17.29

FOOT MARCH RUCKSACK PACKING LIST

Items	Weight (lbs)
MOLLE Ruck	8.5
Wet Weather Bag	0.3
Wet Weather top/bottom	3.4
Poncho	1.05
ACUs	3.2
T-shirt (1 ea)	0.35
Socks (1 pr)	0.2
Green Sleeping Bag	2.0
Bivy Cover	2.0
Poncho Liner	1.14
Air Mattress	1.05
Hygiene Kit	3.0
Weapon Cleaning Kit	1.6
Gloves	0.78
E-tool with carrier	3.3
Total	31.87

TOTAL 12-MILE FOOT MARCH LOAD

Basic Uniform	11.64 lbs
Weapon and Tactical Equipment	24.63 lbs
Rucksack	31.87 lbs
Total	68.14 lbs



IOTV Weights



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Component	X Small	Small	Medium	Medium Long	Large	Large Long	X Large	X Large Long	2X Large	3X Large	4X Large
IOTV (- Plates)	11.69	12.04	12.72	13.46	14.06	14.33	15.17	15.7	16.77	19.2	19.63
Base Vest	9.61	9.93	10.56	11.3	11.72	11.99	12.78	13.31	14.32	16.6	16.97
Front Yoke and Collar Assembly	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Back Yoke and Collar Assembly	0.8	0.83	0.88	0.88	0.91	0.91	0.96	0.96	1.02	1.17	1.23
Groin Protector Assembly	0.72	0.72	0.72	0.72	0.87	0.87	0.87	0.87	0.87	0.87	0.87
ESAPI Plates	7.6	9.5	10.9	10.9	12.5	12.5	14.2	14.2	14.2	14.2	14.2
ESBI Carrier w/ Plates	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Total System	26.89	29.14	31.22	31.96	34.16	34.43	36.97	37.5	38.57	41	41.43